

N92-12505

**Cooperative Processing Data Bases**  
Juzar Hasta, *Gupta Technologies Inc.*

**Abstract**

This presentation will be about cooperative processing for the 90's using client-server technology; concepts of downsizing from mainframes and minicomputers to workstations on a LAN will be the main theme.

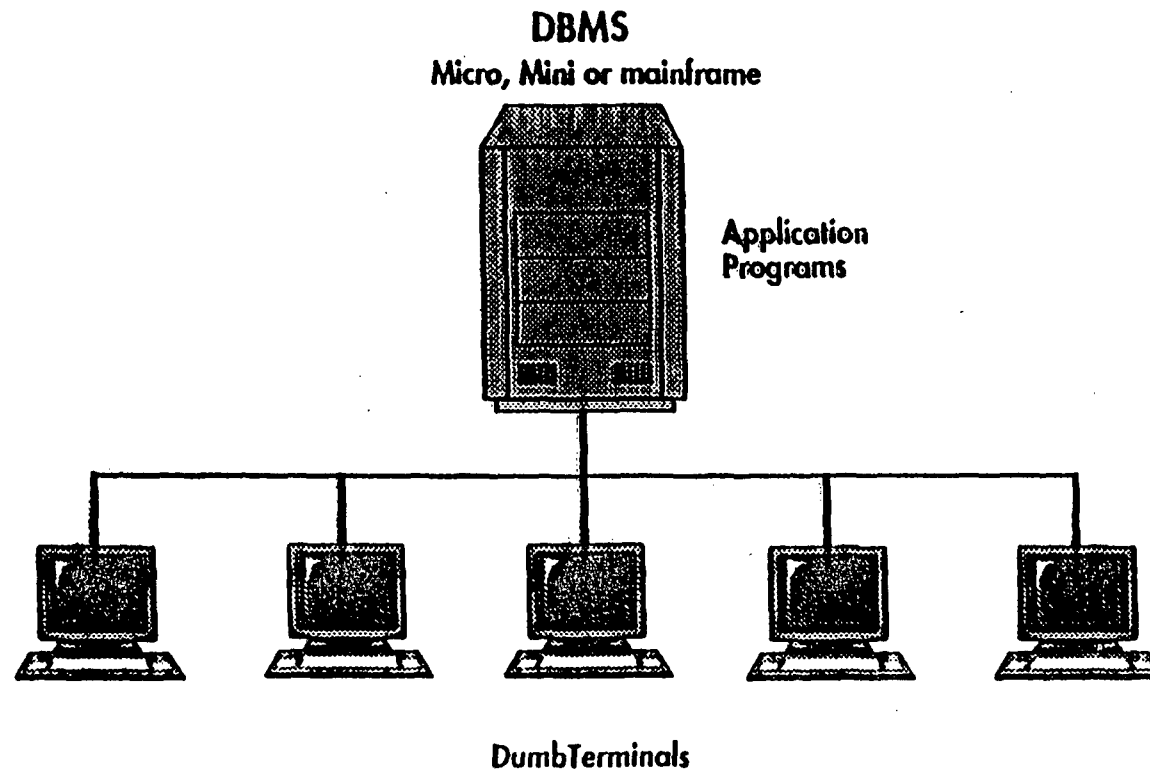
# Graphical Front-Ends for SQL Back-Ends

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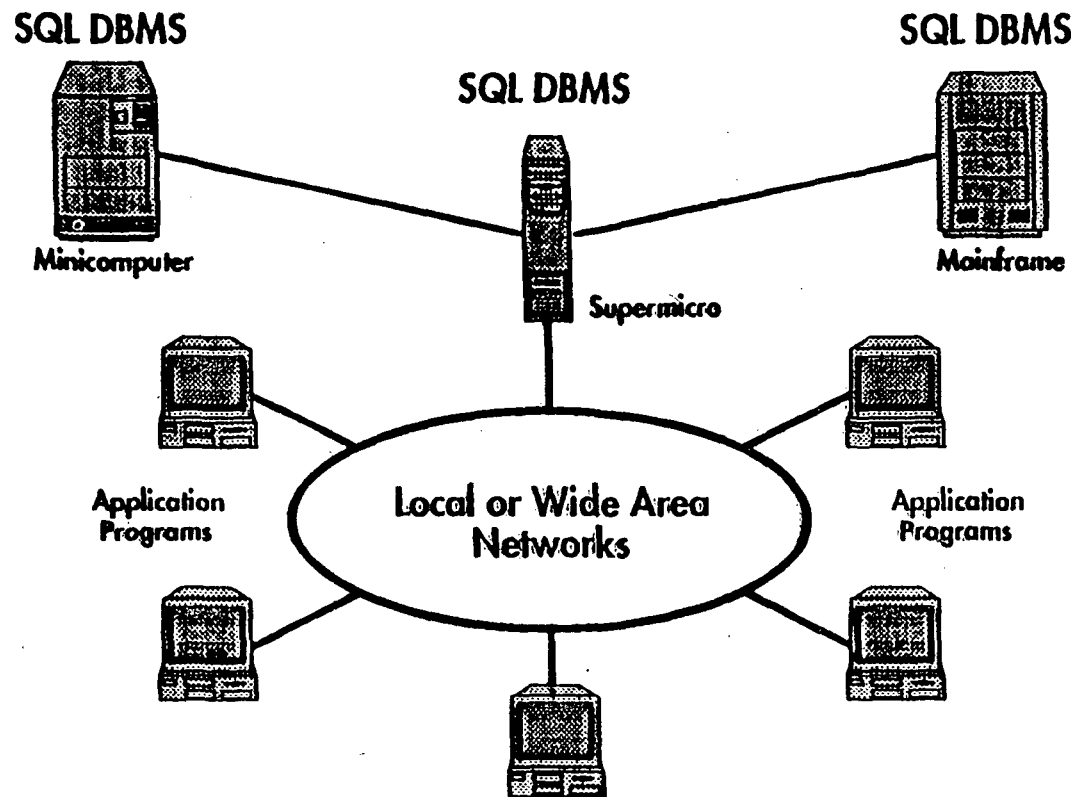
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# Traditional Online Applications



# Cooperative Processing Applications





# **SQL Cooperative Processing**

**When application programs run on PC workstations but transparently access SQL databases which reside on mainframes, minis, or micro based data servers.**

# **Graphical Front-Ends for SQL Back-Ends**

**What makes an application graphical?**

# Elements of a Graphical Application

- **Bit Map Graphics**
- **Dialog Boxes**
- **Point Devices**
- **Windows & Scroll Bars**
- **Color & Fonts**
- **Text & Graphics**

# Graphical Programming for SQL

- Visual display of code
- Point & click drawing of objects
- Events & messages
- Procedural actions
- Explicit SQL coding
- Reusable functions
- Animated debugging

# **Graphical Front-Ends for SQL Back-Ends**

**Graphical programming for Windows  
and OS/2 PM**

# End-User Graphical Tools

- **Primarily for decision support**
- **Ad-hoc query and reporting**
- **SQL must be invisible**
- **Integration with spreadsheets/WP**
- **Easy application generation**

# PC DBMS Software in the Nineties

## Software

Graphical PC tools for  
SQL databases

PC LAN client/server SQL  
systems

Enterprise-wide PC to  
SQL cooperative processing

## Benefits

Improved people productivity

Downsize from minis and  
mainframes

True integration of PCs into  
corporate data processing

# **Future of Graphical Interfaces**

- **Most PCs will go graphical within 3 to 5 years.**
- **Windows and OS/2 PM will be the dominant graphical environments.**
- **Graphical Front-Ends will drive Cooperative-Processing applications.**
- **Programmer tools will become more sophisticated, yet simpler.**
- **End-User tools will become more powerful.**



# The Significance of SQL

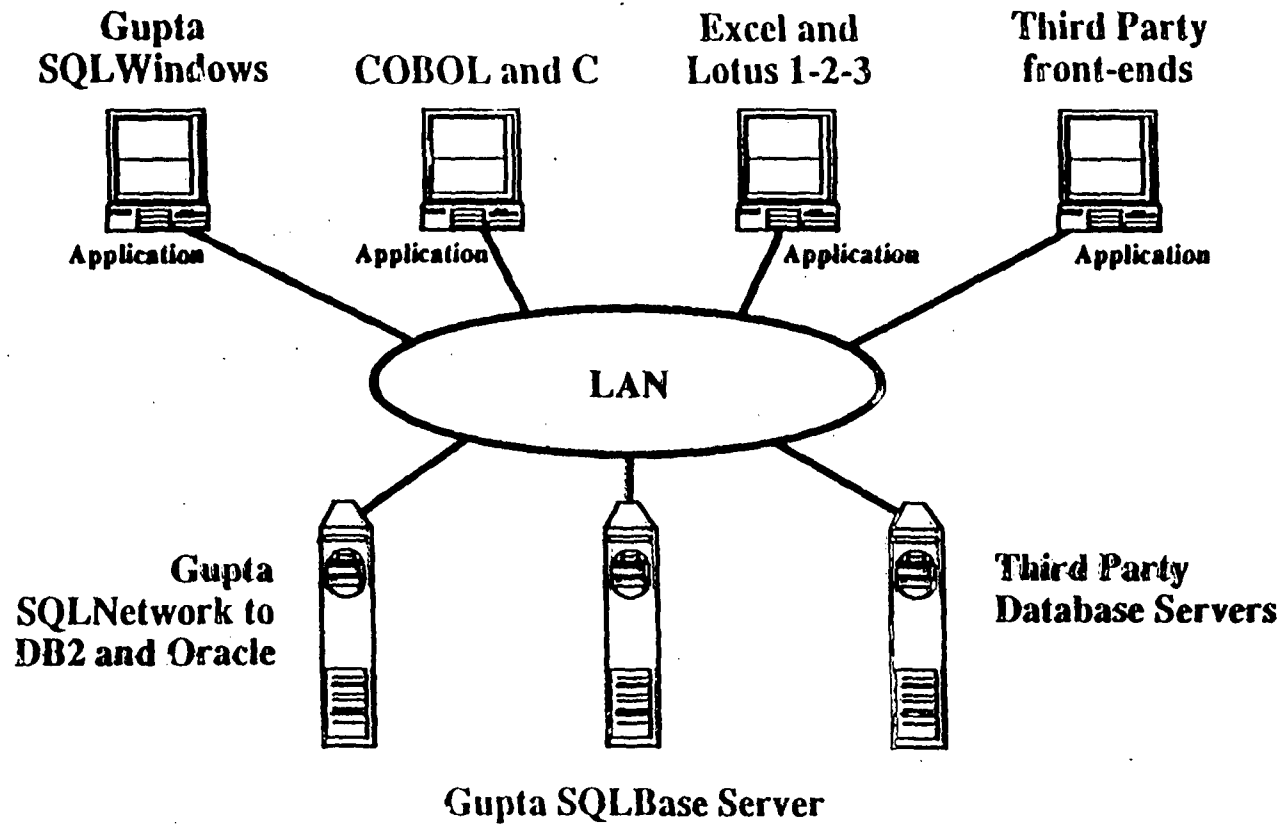
- **SQL makes it possible to develop LAN database servers.**
- **SQL enables development of engine-independent application tools.**
- **SQL provides unified access to micro, mini, and mainframe databases.**

**We Open Windows to SQL**

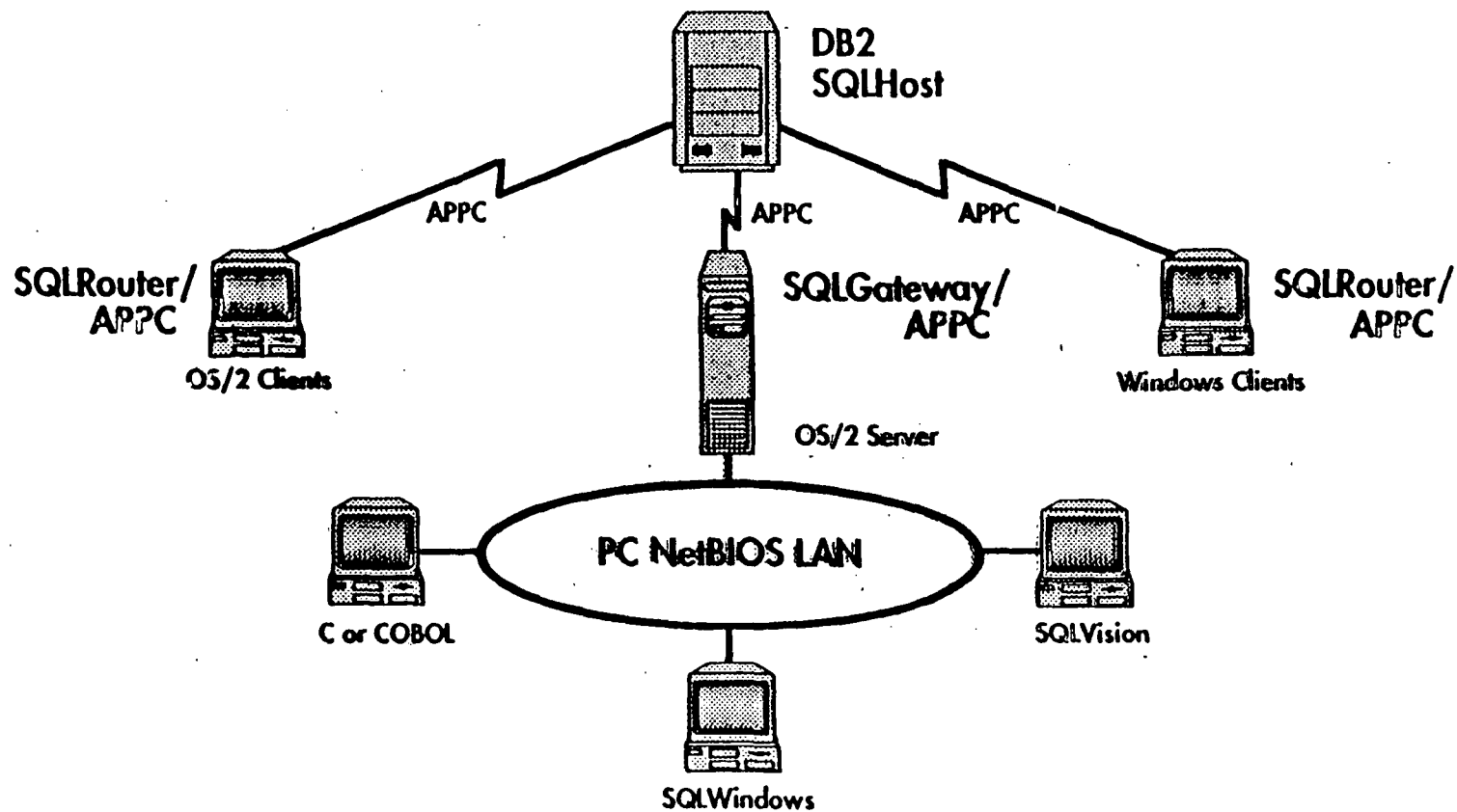
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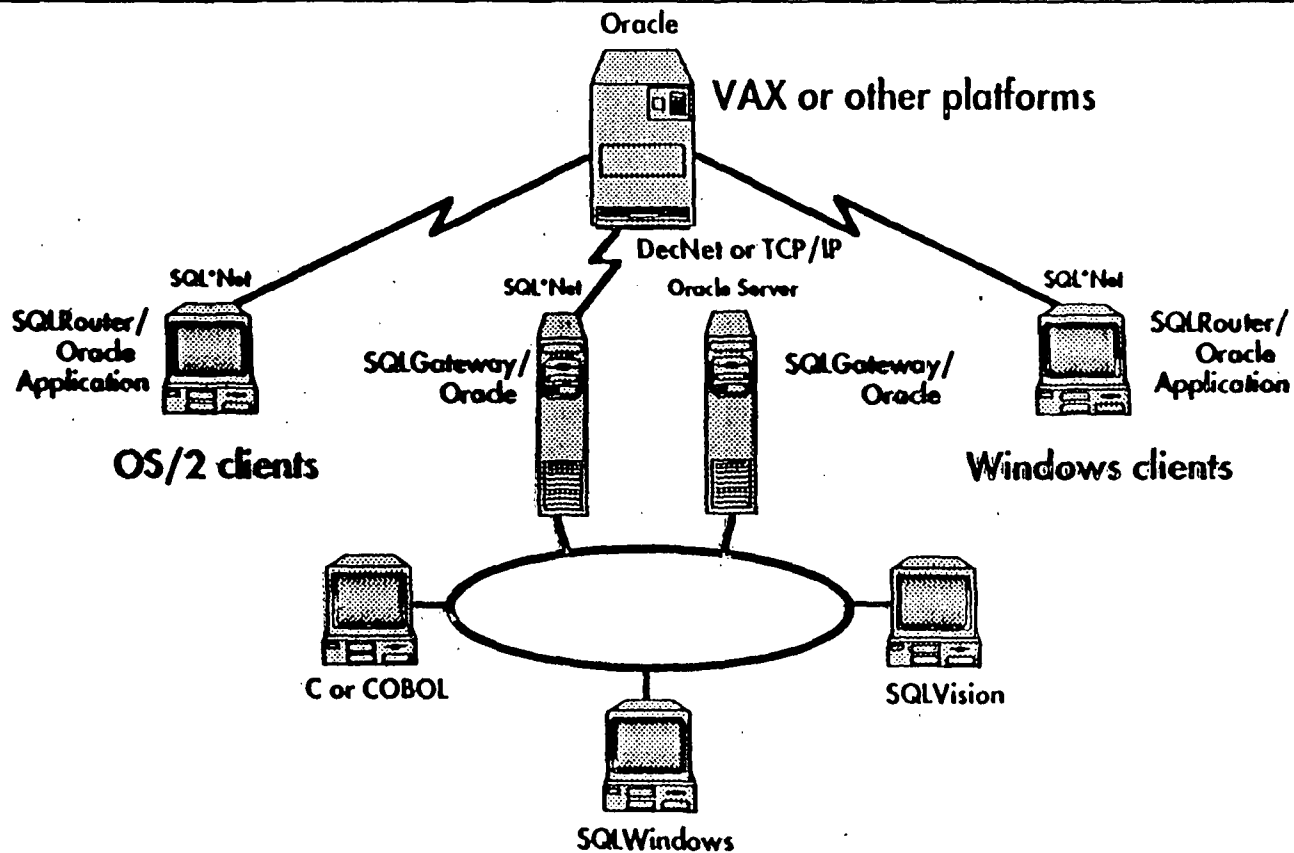
# Gupta SQL System



# PC to DB2 Connectivity with SQLNetwork



# SQLNetwork for Oracle



# Regional Multiple Listing Service

File Connect

Query Display

All

by City

by Property Number

by Price - Less

by Price - More

by Age - Newer

by Age - Older

City:

Broker:

Agent:

Listed:

Thru:

Property #:

Lot Size:

Bedrooms:

Baths:

Age:

Description:

Database/Query Status

DEMO

DB2DEMO

File Edit Outline Draw View Search  
Run F1=Help

- ♦ Title: Estimate Prices
- ♦ Window Location and Size
- ♦ Visible? Yes
- ♦ Keyboard Accelerator: (none)
- ♦ Message Actions
  - ♦ On SAM Click
    - Set fldOurPrice = fldl IstPrice - 5000

Fast Car Auto Brokers

Form Edit

Make:

Model:

List Price:

Our Price:



SQLWindows - FASTCAR.APP

**File Edit Outline Draw View**

**Search Run** F1=Help

- ◆ Form Window: frmMain
  - ◇ Title: Fast Car Auto Brokers
  - ◇ Icon File: (none)
  - ◆ Display Settings
  - ◆ Menu
  - ◆ Contents
    - ◆ Data Field: fldCarMake
    - ◆ Background Text: Ma&ke:
    - ◆ Background Text: &Model:
    - ◆ Data Field: fldModel
    - ◆ Background Text: &List Price:
    - ◆ Data Field: fldListPrice
    - ◆ Background Text: &Our Price:
    - ◆ Data Field: fldOurPrice
    - ◆ Data
      - ◇ Maximum Data Length: Dynamic
      - ◇ Data Type: Number
      - ◇ Editable? Yes
    - ◆ Display Settings
      - ◆ Window Location and Size
      - ◇ Visible? Yes
      - ◇ Border? Yes
      - ◇ Format: Currency
      - ◇ Country: Default
    - ◇ Message Actions

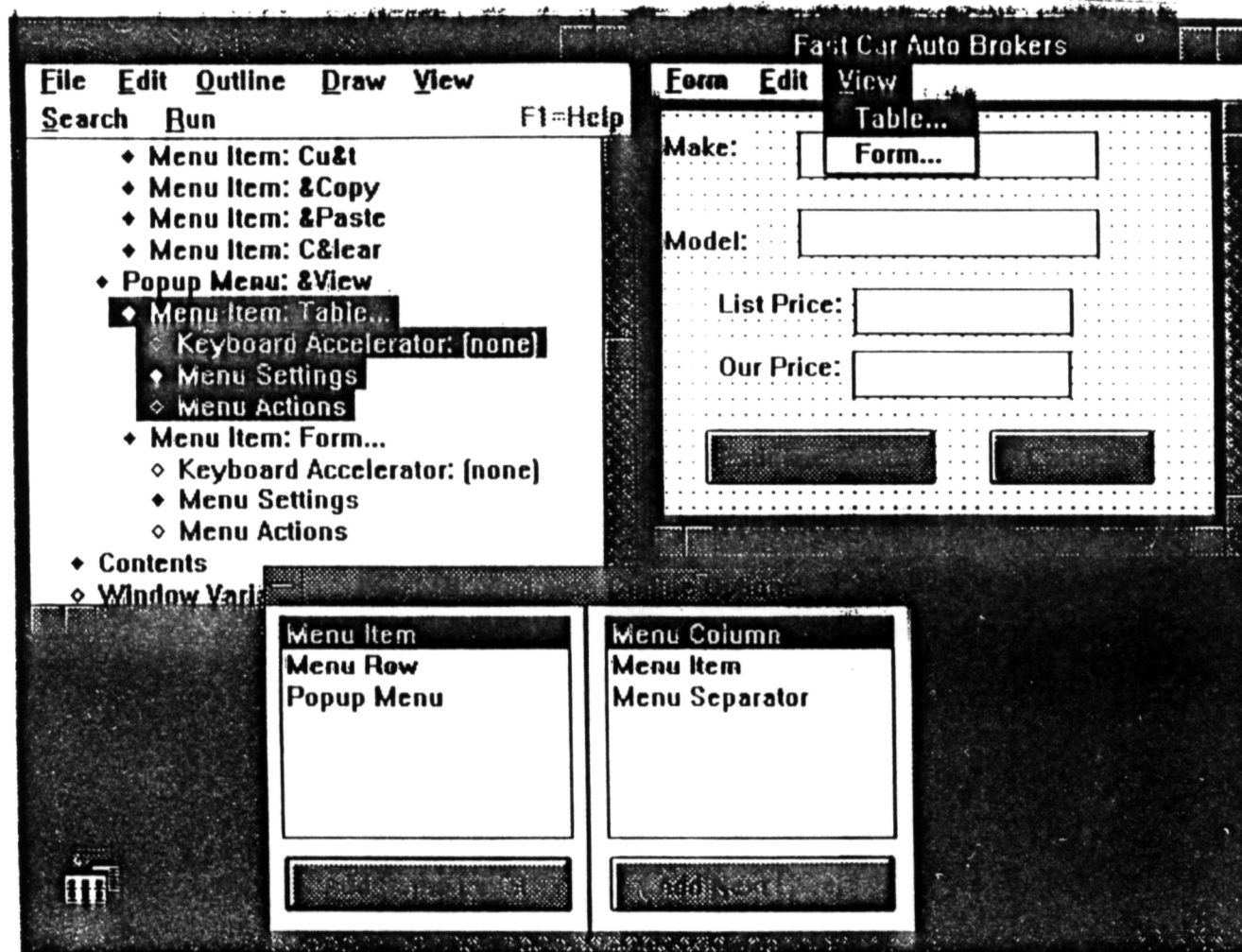
**Form Edit**

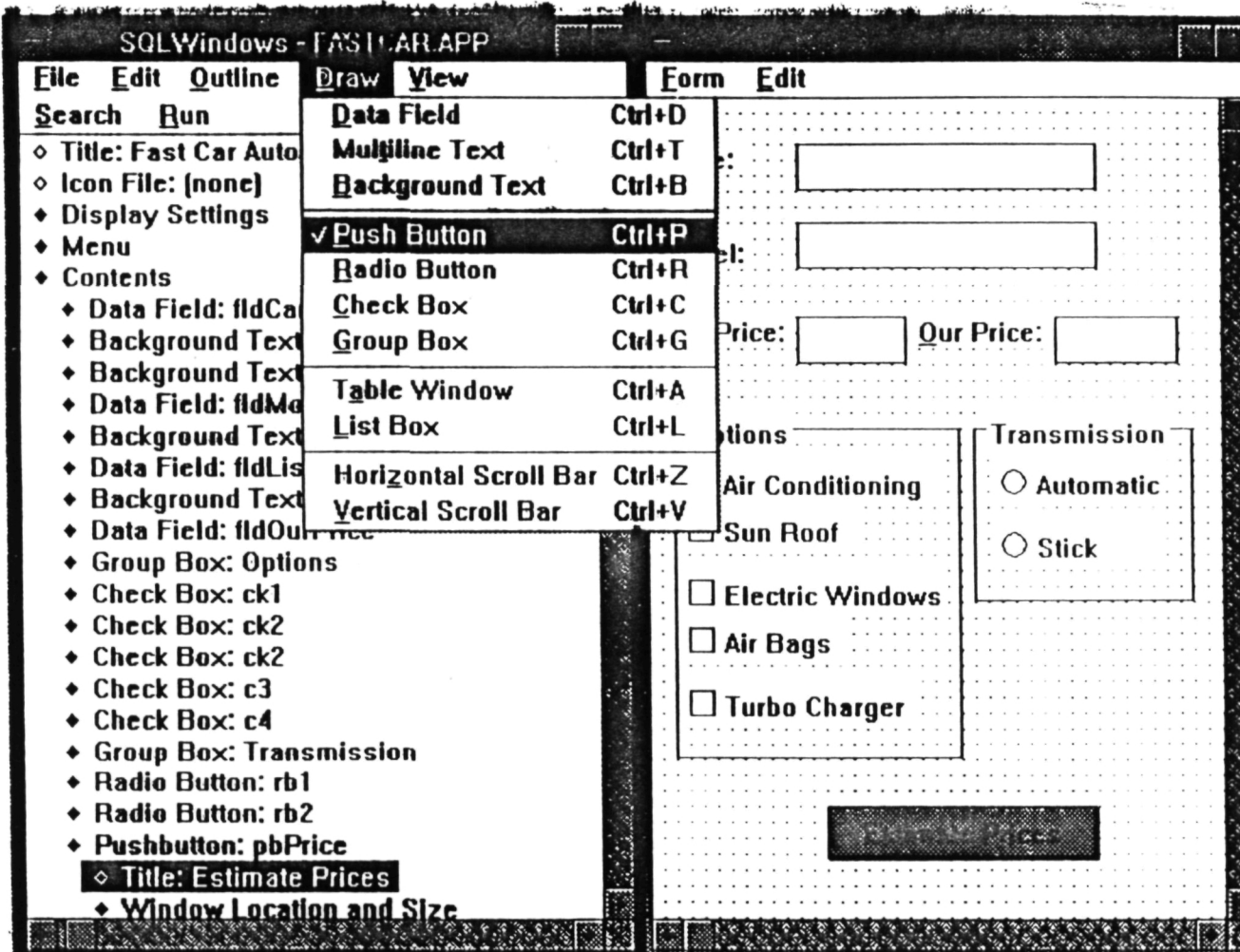
Make:

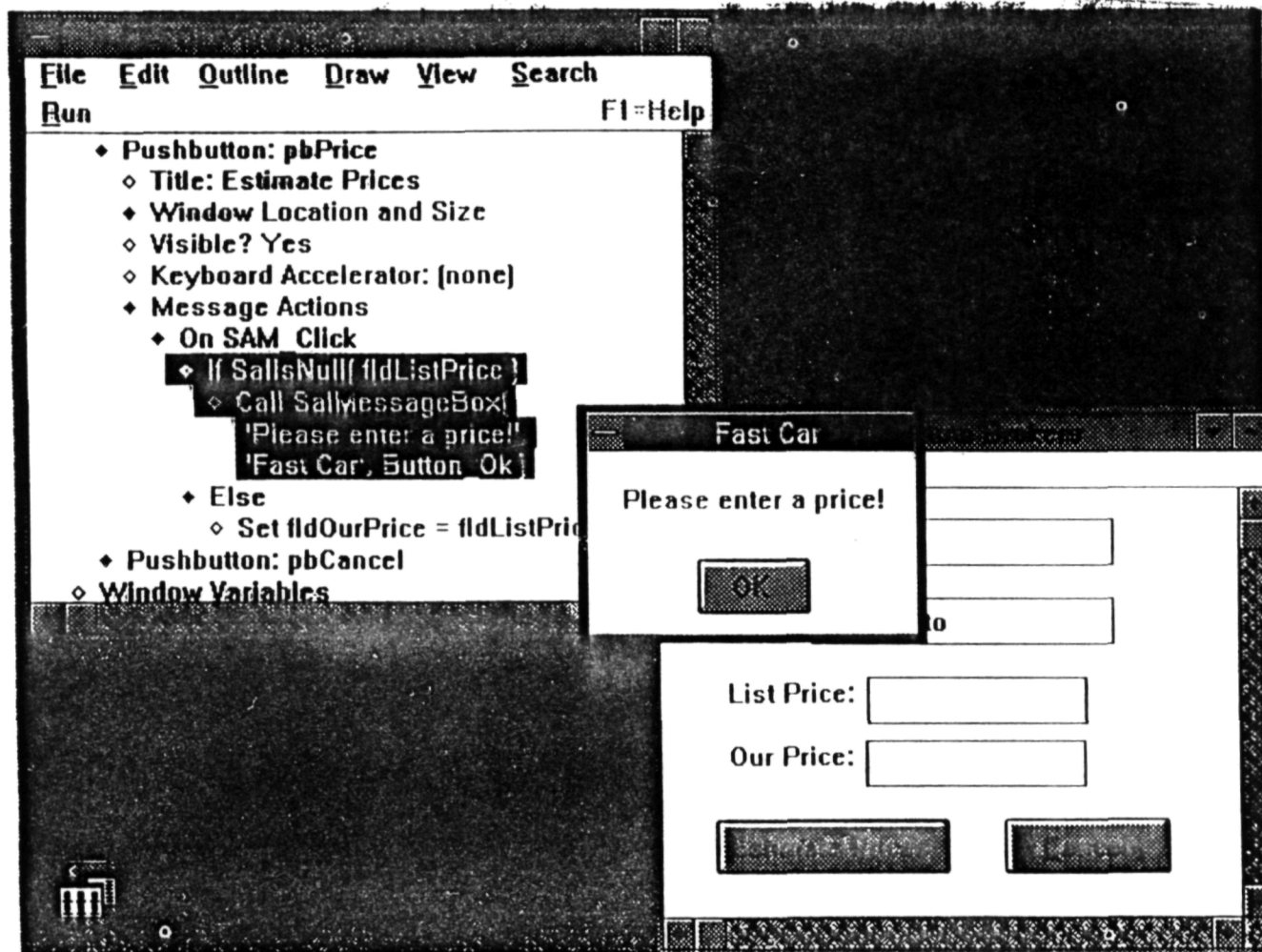
Model:

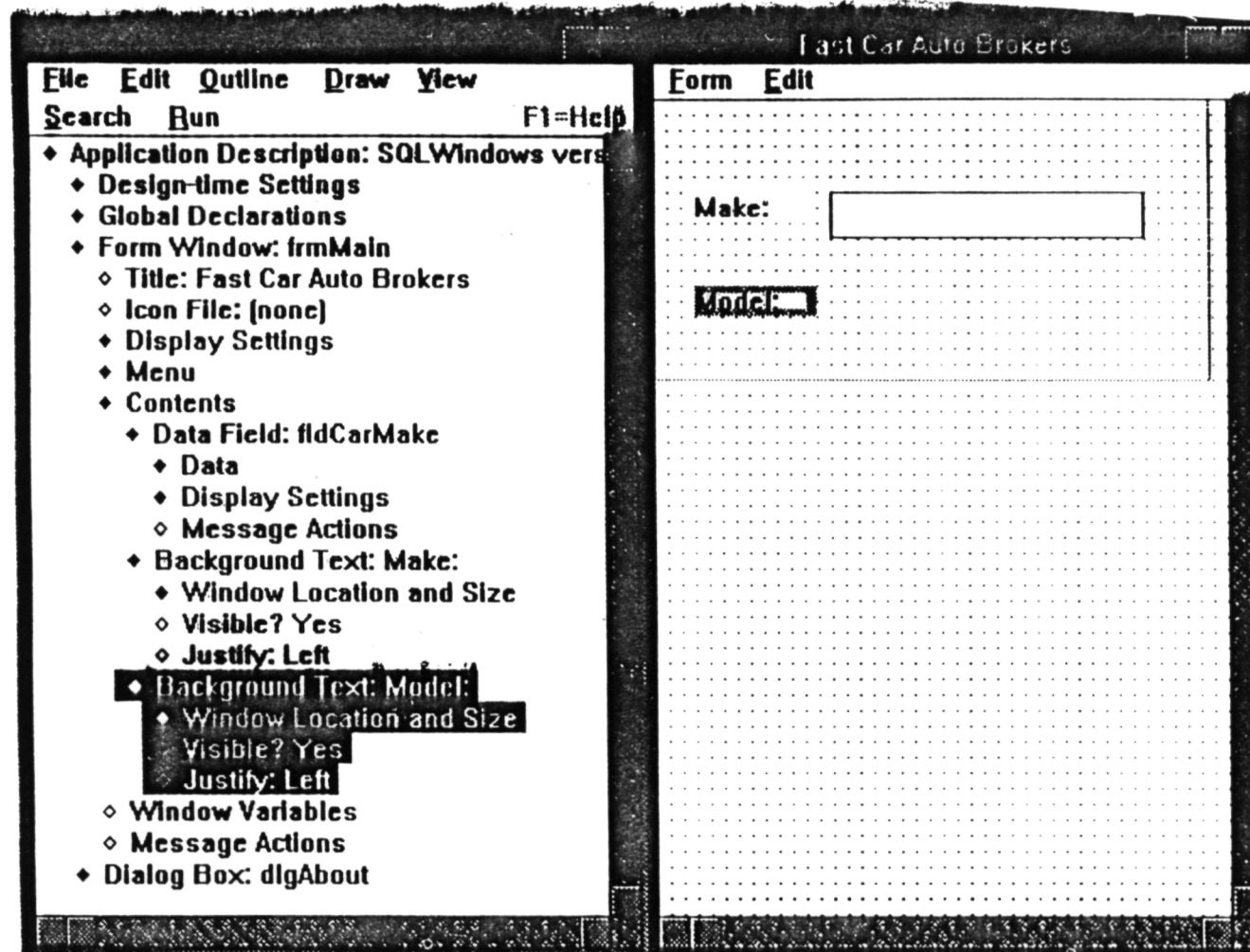
List Price:  Our Price:











Regional Multiple Listing Service

File Connect Query Database

City: Woodside

Area: Skyline

Property #: N24680

Asking Price: \$1,200,000.00

Lot Size: 40X85

Broker: Houlihan Lawrence

Bedrooms: 4

Agent: William Betts

Baths: 2

Listed: 10/14/88

Thru: 12/14/89

Description:

Age: 20

English style Tudor of brick and stone set in park like surroundings. Designer kitchen, rec room, cozy living room with fireplace. Skylit master suite. Complete security system. Separate guest cottage/office.



Database/Query Status

DEMO  
DB2DEMO

